

***FlyBy Math™* Alignment**
Academic Content Standards - Mathematics

Mathematical Processes Standard

Benchmarks Grades 5-7

B. Apply and adapt problem-solving strategies to solve a variety of problems, including unfamiliar and non-routine problem situations.

***FlyBy Math™* Activities**

--Use tables, graphs, and equations to solve aircraft conflict problems.

C. Use more than one strategy to solve a problem, and recognize there are advantages associated with various methods.

--Use tables, graphs, and equations to solve aircraft conflict problems.

--Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system.

D. Recognize whether an estimate or an exact solution is appropriate for a given problem situation.

--Predict outcomes and explain results of mathematical models and experiments.

F. Use inductive thinking to generalize a pattern of observations for particular cases, make conjectures, and provide supporting arguments for conjectures

--Use tables, bar graphs, line graphs, equations, and a Cartesian coordinate system to draw conclusions.

G. Relate mathematical ideas to one another and to other content areas; e.g., use area models for adding fractions, interpret graphs in reading, science and social studies.

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

H. Use representations to organize and communicate mathematical thinking and problem solutions.

--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

I. Select, apply, and translate among mathematical representations to solve problems; e.g., representing a number as a fraction, decimal or percent as appropriate for a problem.

--Choose among tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

J. Communicate mathematical thinking to others and analyze the mathematical thinking and strategies of others.

--Predict outcomes and explain results of mathematical models and experiments.